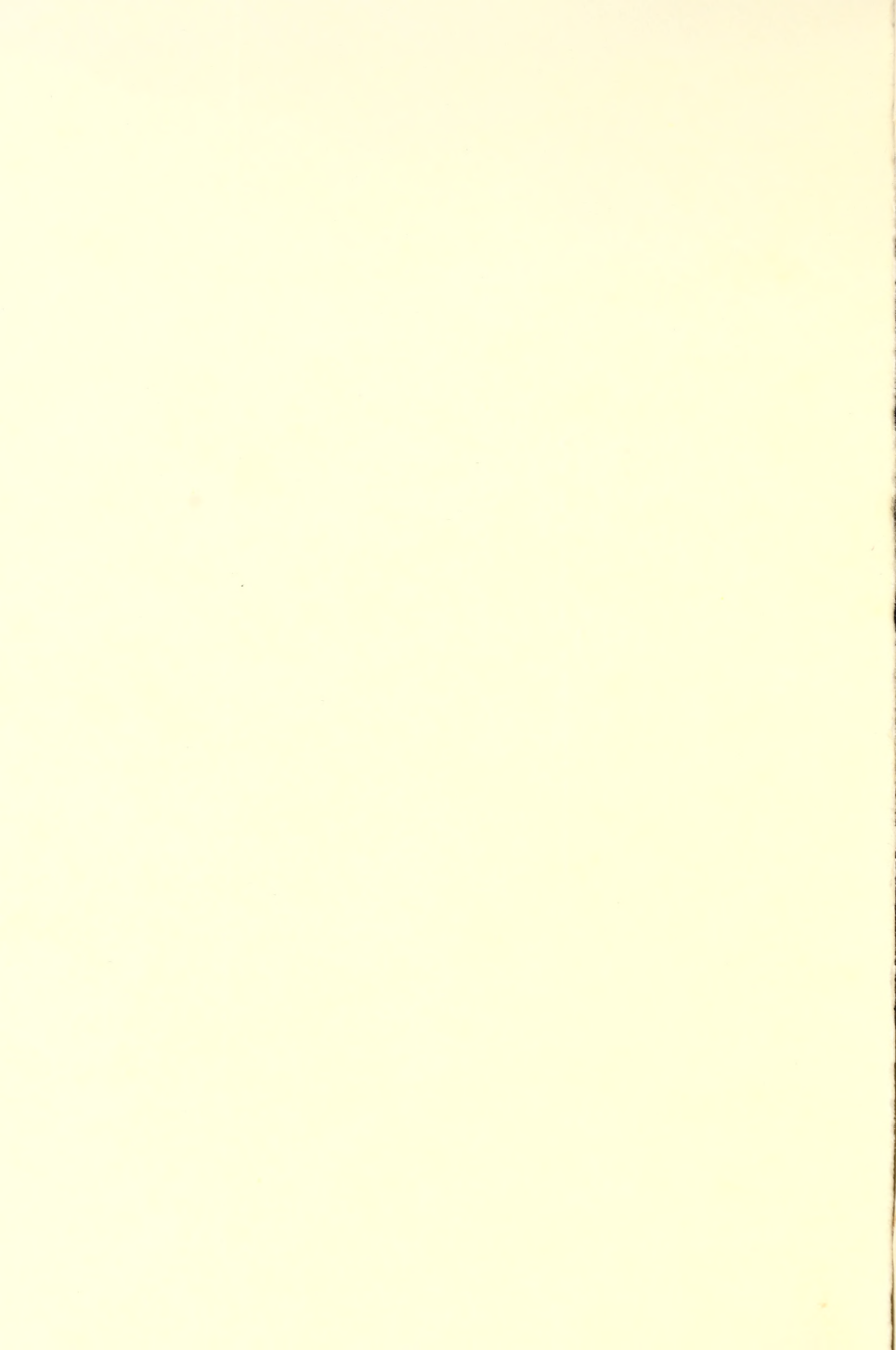


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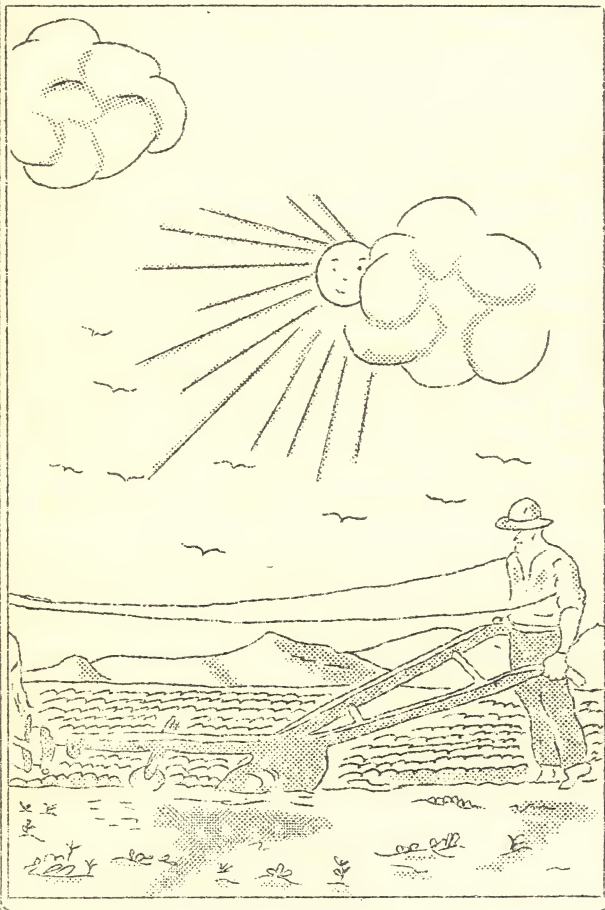
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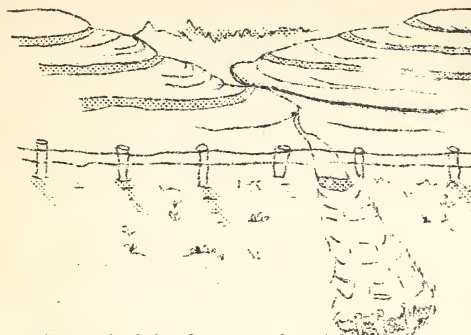
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MAY
THE FARMER'S SHOP



ENGINEERING IN REEDY FORK



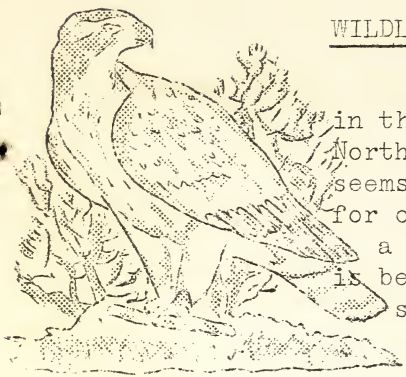
ENGINEERING WORK on the Reedy Fork project is progressing more rapidly as fairer weather conditions prevail. Thus far some phase of engineering work has been completed, or is in process of completion, on

seventy-eight farms in the area. Twenty-three miles of terraces, draining 328 acres, have been constructed and an additional 1040 acres, comprising 77 miles of proposed terraces, have been staked out. In preparing suitable outlets for the terraces, 47 permanent outlet structures have been built, and 7287 feet of outlet channels opened and seeded down for use in diverting the water from the fields.

MORE THAN TWO HUNDRED THIRTY acres have been staked out for narrow and broad strips without the terraces.

WORKING IN CONJUNCTION WITH the agronomy department, a number of meadow strips have been planned and laid out in fields which are to be terraced at a later date. After sod has become established on these strips, the terraces will be constructed and the water diverted into them. It is our desire to make these strips wide enough to prevent the soil from washing into the channel by causing the water to spread out in the channel. These strips will serve as a source of hay for the farmer, since they will be wide enough for a mowing machine to operate over them.

WILDLIFE IN REEDY FORK AREA



IN THE REEDY FORK AREA, as in the major portion of Piedmont North Carolina, clean cultivation seems to be the most obvious cause for our game bird scarcity. As a remedial measure every farm is being planned for necessary seeding and planting on eroded areas, on land which has been removed from cultivation, and on field borders and odd corners. Farmers are urged to leave the natural cover and food now growing on the land that they are not using for cultivation as a source of food and cover for wildlife.

TO INCREASE THE NATURAL FOOD SUPPLY, strips from two to ten yards wide may be disked in sedge and other growths. Disking scarifies dormant seed, such as ragweed and patridge pea. If diskings is done in early Spring, a good stand of most of these plants is likely to follow.

THE ADVANTAGE OF STRIPS FOR QUAIL in feeding cannot be overemphasized. Quail may dart into the strip and back into heavier cover with less fear of being attacked by an ever-active Cooper's hawk. Anyone who has hunted quail knows that they are most likely to be found in the edges of fields where they can quickly get to cover.

PROVIDING FOOD AND COVER the year through for our game birds should be our chief aim in wildlife conservation. Cowpeas, soybeans, millets, sorghums, sesban and chufas are being issued to cooperators in this area to be sown as planned by the Soil Erosion Service during the next fall and winter.

DOMINANT SOILS IN SES AREAS

The Appling Soils

DESCRIPTION: The Appling soils are often called "gray land". In virgin wooded areas the inch or two of surface is a gray to dark gray loose, loamy sand which contains very little organic matter. This is underlain to depths of 8 to 15 inches by a yellowish-gray friable sandy loam. Below this is a layer of reddish-yellow friable sandy clay which varies in thickness from 3 to 9 inches. The upper portion of the subsoil proper is a pale red to yellowish-red friable, brittle clay loam which grades at depths of 25 or more inches into a yellow and red streaked and mottled clay loam. The lower portion of the subsoil is a red clay which shows streaks or mottlings of yellow. The clay is rather stiff and compact in place, but is brittle and crumbles readily when dry. Angular quartz particles are present throughout the subsoil, and mica flakes often show plainly. Soft, varicoloured, decomposed rock is generally found at depths below 5 to 7 feet. This soil has a much lighter gray surface color in cultivated fields than Cecil sandy loam, and the subsoil is not a decided red, as in all Cecil types. In cultivated fields the surface frequently shows yellowish-gray or pinkish-gray, sheet erosion having removed a large portion of the topsoil. We have 3 different types in the Appling soils: sandy loam, fine sandy loam, and gravelly sandy loam.

DERIVATION: Formed chiefly from granite. Also from schist, gneiss, and related rocks.

OCCURRENCE: Throughout Reedy Fork and in the northern part of the Deep River areas.

TOPOGRAPHY: Ranges from practically level to hilly and broken. The greater part, however, ranges between 3% and 15% slope. Drainage is excellent, and on the smoothest areas surface water quickly penetrates the friable subsurface layer.

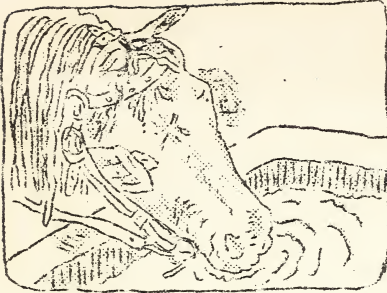
FERTILITY: Chemical analyses by the North Carolina Experiment Station indicate that Appling soils are very low in content of nitrogen and phosphoric acid. These soils, however, are higher in potash content than any other Piedmont soils. Results of field experiments indicate that a complete fertilizer is generally required on Appling soils for best results. These soils are not as strong as the Cecil types, and require heavier fertilization. The incorporation of organic matter is highly essential, except where this soil is used for tobacco.

CROP ADAPTATION: The Appling soils are excellent for tobacco and truck. The type of tobacco produced is light in body, and of bright color. The soil is open enough for rapid percolation of rainwater, an essential factor in tobacco production. For truck these soils are "early" - that is, they warm up more quickly in Spring than the heavier surfaced types, and they produce plants that mature quickly. Appling soils are considered the equal of any in North Carolina for peaches, dewberries, and blackberries, but they rate low in adaptability to small grain and clover.

DEGREE OF EROSIVENESS: Appling soils, except the gravelly type, are subject to moderately severe sheet erosion. These soils, however, tend to form into gullies quite severely.

CONTROL MEASURES: Except for the gravelly type, the Appling soils lend themselves readily to all methods of erosion control.

LIVESTOCK IN NORTH CAROLINA



THERE IS AN obvious need for the development of livestock and dairying in North Carolina. No state in the Union is more suitable in climate, rainfall or soil conditions for the culture of cattle than our own state; yet

we rank at the bottom of the list in the number of livestock. It is appalling that the citizens of North Carolina spend \$75,000,000 yearly for milk products produced outside of the state and \$10,000,000 for hay grown elsewhere. It is estimated that with our humid conditions and the amount of precipitation in the soil, with proper cultivation, this state could lead in the production of hay, which now equals only 4% of our agricultural output.

TODAY THERE ARE 596,772 head of cattle in North Carolina, only 340,807 of which are milk cattle: for every ten persons there is a milch cow. The per capita consumption of milk (not including condensed milk) is $\frac{3}{10}$ of a pint a day, while doctors inform us that every adult should drink at least one quart and every child one pint a day. Still, North Carolina produces only 50% of our milk products. In other words, we now have less than half enough cattle to supply our milk needs.

WE ARE IN ALMOST AS DEPLORABLE a condition as regards horses, mules, hogs and sheep. There are 266,951 mules in North Carolina, most of which were grown in other states. The average price for mules (\$140.00) in this state is the highest in

the United States. The same is true for horses, of which we have 72,347. Our 758,106 hogs, despite the fact that the West cuts off pig's heads, could be increased. And we could easily use more than our 96,113 sheep. And if we ask the farmer why he has so few livestock he will answer: "Well, I can't afford to feed more." And the reason he cannot feed more livestock is because he has used every acre available for "money crops" and neglected to cultivate hay and forage crops sufficient to supply the food requirements of livestock. What is to be done?

IT SEEMS THAT ONE of our greatest agricultural needs in North Carolina is the development of animal culture. This depends upon the cultivation of hay, forage and other close-growing crops. It will not only supply the needs of our citizenry in the form of milk and beef, but will also build up the soil.

ANIMAL CULTURE INCREASES THE USE of close-growing crops, which will reduce the washing of the soil and when plowed under will enrich the soil. Organic matter fertilizes the soil and also absorbs more rainfall. Hay can be grown also as an income crop. The ten year average price for hay is slightly above \$20.00 per ton. Add to this the fact that our landscapes are made more beautiful when the land is planted to close-growing hay crops than when planted to row crops or left idle.



FARMERS, SAVE SEED

IT HAS BEEN DEMONSTRATED by experiments and by farm experience that an effective erosion control program can not be carried on without the use of thick-growing crops. To demonstrate the effectiveness of these crops in controlling erosion and to start a system of crop rotations, the Soil Erosion Service has supplied the necessary seed for strip cropping, for cover crops on retired land and for gully plantings. The Soil Erosion Service will not be able to supply seed after the first year, consequently, farmers should plan now to save their seed to carry on this program.

SMALL GRAINS, cowpeas, soybeans, and lespedeza seed can be harvested by farmers in the Deep River area and saved for seeding purposes. The best fields of wheat, oats and barley should be selected now as seed patches, harvested and threshed separately. Cowpeas and soybeans can be harvested early next fall. Cowpeas can be picked from vines, or whole vines can be cut and threshed.

LESPEDEZA SEED can easily be saved. Since lespedeza is extensively used in the erosion program on practically every farm, arrangements should be made to save the necessary seed. To save seed from the Korean variety, cut the whole plants with a mowing machine when seed is mature and thresh. The type of threshing machine commonly used in this area for separating grain will also thresh lespedeza. Varieties like the Kobe and Tennessee #76 can be harvested by using fans on mowing machines.

THE COOPERATORS WHO have been supplied with Kobe and Tennessee #76 Lespedeza should arrange to get a pan to be attached to mowing machines for saving seed. These pans sell at a price ranging from \$4.00 to \$7.50. The hardware stores in High Point

and Greensboro handle them. Farmers who have the equipment and care to do so could make their own pans. Three or four could buy one jointly. With such equipment you could harvest sufficient seed for your own use and also some for sale. The sale of a small quantity of seed would pay the cost of a pan.

THE SAVING OF SEED offers a great opportunity to all cooperators to continue an effective erosion control program, to produce more hay and to earn a larger income.

WITH OUR CONTEMPORARIES

".....That soil wastage by wind erosion can largely be controlled by intelligent treatment has been proved on demonstration areas of the Soil Erosion Service on the Texas panhandle. If immediate and thorough steps are not taken to check this monster of wind erosion in our own plains, its raids will continue with increasing frequency and severity, and the desert will encroach upon grazing and farm lands of the west.

"May the spectacles of China arouse us as a nation to give our lands a new deal before it is too late! We have ruthlessly cut our forests with no thought of sustained productivity. We have overgrazed our hill lands until areas, formerly a grazing paradise, are now unable to feed one head per square mile. Deprived of their vegetative cover, these lands as well as millions of acres of our sloping farm lands, are in the grip of sheet and gully erosion. Erosion is like a giant octopus, reaching out its tentacles over our lands....."

---Mrs. Inez M. Lowdermilk
In THE LAND, TODAY AND TOMORROW



EDITORIALS

THE TARHEEL WASHOFF

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The summer is coming upon us---
the second summer the Soil Erosion
Service has spent in North Carolina.
Although the spring seeding and plant-
ing season is about over, the work of
the Soil Erosion Service "is just be-
ginning". During the summer there is
much to be done. Terraces are to be
constructed; terrace outlets, gully
control structures and check dams
must be built. Crop plans must be in-
itiated and carried out. Forest im-

provements should be made. Wildlife conservation work is to be continued, and the agronomy and erosion departments are to be busy giving their advice and service to the citizens in the erosion control areas. But without the cooperation and assistance of the farmers with whom we are to work our program will be doomed.

-oOo-

OUR FINE FEATHERED FRIENDS

W. L. McATEE, AUTHORITY ON BIRDS and wildlife conservation says: "America is a country of bird lovers. There are, I believe, very few among us who desire to destroy bird life wantonly and without cause. Aside from the economic considerations, birds are part and parcel of our consciousness, and life would be less beautiful and less full without them. Birds have gladdened countless millions of hearts with their songs, their grace, and their matchless colorings, and will continue to do so for untold ages to come.

"But, as in all things, there is some bitter to take with the sweet. Against the esthetic value of the birds, and their use in combatting insect pests, we must place their destructiveness under certain conditions, and under given circumstances. In such instances we are justified in controlling them by scientific means. That, after all, is simply observing Nature's most fundamental law.

"To do even-handed justice, Uncle Sam can take neither the role of ruthless exterminator nor that of the uncompromising conservationist. He hopes, however, by his present method to protect his citizens from costly depredations, and at the same time preserve for future generations our magnificent heritage of bird life."

FORESTRY PROGRESS IN DEEP RIVER



THE FORESTRY DEPARTMENT has now completed its first year of work in the Deep River area. The following is a summary of accomplishments in the field of forestry:

UP TO APRIL 30, 1935, 872 acres on 165 farms were planted or reforested.

AT THE SAME TIME 313 acres of gully planting was completed. The total number of tree seedlings planted is 1,156,348, which were divided as follows: 585,300 loblolly pine, 58,150 shortleaf pine, 284,800 black locust, 3025 walnut, 5479 oak species, 53,548 red cedar, 5500 cypress, 6200 catalpa, 1600 elm, 18,696 white ash, and 119,660 miscellaneous species. On the highways 72,941 square yards of seeding and bank protection planting were completed. Three hundred and sixty-nine acres of gullied areas were seeded. Besides receiving planting attention, 75,000 shrubs and 15,000 pounds of seed were used on the job of gully control.

MANY OF THE MISCELLANEOUS species mentioned above were used in experimental plantings. Of the above acres planted, 39 acres are set up as experimental plantings. The SES plantings were made with such species as Chinese tallow tree, Chinese soap tree, Chinese and Japanese chestnuts, Chinese elm, cucumber tree, osage orange, basket willow and box elder.

ANOTHER IMPORTANT PHASE IN THE forestry department's activities is the timber stand improvement work. This work up to date has included the removal of poorly-formed and sleet-damaged trees. The two

main examples of this work are on the city lake property on which 381.2 acres were improved, and Camp Uwharrie of 33.3 acres. Nine other farms besides the above named have had timber stand improvement installing 84 acres. From 500 acres in the demonstration above referred to, the following products have been cut: 2180 cords of firewood, 119 cords of pulpwood, 3846 stakes for SES work, 643 posts and 16 spreader logs.

IN FORESTRY, as in any other successful business, an inventory must be made of the resources with which we must deal. The forestry department has conducted a cruise of a section of the woodland of the Deep River area. Up to date 2822 acres have been covered with an average 10% cruise. The cruise showed about three and a half millions cubic feet of timber, 3472 cords of wood not of valuable size or species and 14,774 posts. This work will continue through the summer of 1935.

IN NOVEMBER, 1934, a study of the wood utilization in the cities of High Point, Greensboro, Winston Salem, Asheboro and Thomasville was made. Approximately 69% of the lumber or 53 million feet of the supply used by those industries, is supplied by North Carolina. The survey was conducted to determine the kinds and amounts of wood used in the various local industries and how much might be supplied from local sources. It was found that 25 different kinds of wood are being used, 20% of which may be grown locally.

TWENTY SEPARATE PRODUCTS, including all kinds of furniture, radio cabinets, sash and doors, caskets, veneers, shuttles and flooring are made of wood grown in this area.

TO COMPLETE THE NECESSARY seed supply for growing stock for the 1935-36 planting season, the

following seed was collected upon the Deep River area:

Black walnut	40 Bushels (hulled)
" "	700 Bushels (unhulled)
Red Birch	10 Bushels
Catalpa	6 Bushels
Yellow Poplar	40 Bushels
Black Locust	225 Bushels
Red Cedar	155 Pounds
Misc. species	37 Pounds

TO FULFILL ALL SEEDLING requirements a small nursery for growing 5000 oak and 200,000 black walnut was established by the Soil Erosion Service.

OTHER JOBS COMPLETED by the forestry department were building 10,000 linear feet of fire lanes, arranging preliminary plans for the purchase and development of submarginal areas of 2300 acres, and 4000 acres respectively (in cooperation with the Agricultural Adjustment Administration), establishing an arboretum on the scout camp property to continue to work upon, giving instruction to scouts upon forestry to enable them to pass a merit in forestry, giving talks and attending meetings for the advancement and better understanding of the forestry department's activities in the soil erosion control program.

THE RECEPTION OF THE WORK already started encourages the forestry department to greater efforts as it enters the second year. It is the hope of this department that a larger tree planting program, increased woodlot improvement work, fire prevention, and a well-rounded program of land use can be carried out. The realization of that hope depends on the cooperation of the land owners whom we are here to serve. Upon their attitude depends to a great extent the success of the entire program.

SUMMER FORESTRY WORK IN REEDY FORK

THE SUMMER WORK will be confined to forest management, timber stand improvement, making planting surveys and educational work among woodland owners.

EVEN SOME FORM of extensive management, such as excluding grazing from the woodland, will greatly increase the growth and yield of timber per acre. Intensive management, possible on a smaller scale, will at least double the yield per acre of forest land.

WE WANT TO PUT all the forest land in the Reedy Fork area under some form of management, and we will cooperate with any landowner who avails himself of this opportunity.

DEMONSTRATION PLOTS IN timber stand improvement measures will be set up on different farms throughout the area. An attempt will be made to work in as many different types of stands as possible, to serve as an illustration in the treatment of woodlands to produce the greatest amount of the most valuable products in the shortest period of time.

PLANS FOR PLANTING fields retired from cultivation will continue throughout the summer period. The following species will be planted next fall and spring: loblolly pine, shortleaf pine, white pine, black locust, red cedar, tulip poplar, black walnut, ash, white oak, red oak and cypress. The fields will be planted to species and mixtures best suited to soil type, degree of erosion, and other limiting factors, as well as the farmer's timber needs. Steep slopes and land severely eroded will be planted to trees of commercial value.

TOBACCO ROTATIONS AND EROSION CONTROL

THE TOBACCO PLANT is affected more by the type of soil it is grown on than any other plant. It will grow on all types of soil, but the tobacco produced on certain types of soil is not of salable quality. It is therefore very important that soil types be given great consideration in tobacco farming.

TOBACCO SHOULD BE GROWN on a light sandy soil. So sensitive is tobacco to certain soils that many localities produce certain grades of tobacco which demand special prices on the market. The farmer through years of experience has learned that the lighter and sandier soils of low water-holding capacity and low in soluble mineral matter produce the highest quality tobacco.

IN THE PRODUCTION of high quality tobacco we find the tobacco plant very sensitive in its food requirements. This is the reason for the selection of the well drained, light sandy soil. The farmer can buy the plant food, and apply it in the proper proportion to grow high quality tobacco. But if he undertakes to grow his plant food for tobacco, he has no idea how much has been added to the soil. This is why the tobacco plant will not fit into the regular crop rotation.

THE TOBACCO PLANT requires the very best drainage that can be established in the field. The rows should have a gradual slope of 4 to 6 inches per 100 feet. Then, for a final check on the drainage problem, cultivation should be finished with the ridge method. The ridge will keep the surface water away from the roots of the plant.

ACCORDING TO THE ABOVE STATEMENTS THE tobacco plant requires a special rotation or cropping plan to fit into the soil erosion control program.

The following plans are recommended by E.C. Jernigan, assistant erosion specialist of the Soil Erosion Service in Greensboro:

(1) FIRST YEAR: Tobacco followed by small grain.

SECOND YEAR: Grass mixture.

(2) Plant tobacco on a strip of land for two consecutive years, and then rotate with a strip of land where redtop grass has been grown for two years.

(3) Plant tobacco and use ryè for a winter cover crop where the farmer has a limited amount of tobacco soil.

-oOo-

PROMINENT CIVIC LEADER PRAISES WORK OF SES

Clarence O. Kuester, Secretary of the Chamber of Commerce of Charlotte, in discussing the present administration in Washington said: "The work that the Federal Soil Erosion Service is doing is the best money the United States Government is spending."

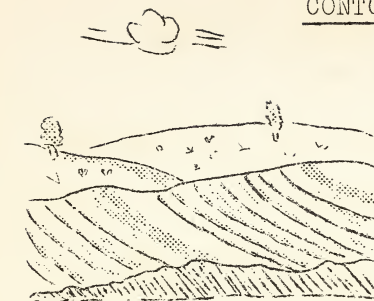
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Did you know that if all the terraces that the Soil Erosion Service has built in one year were put end to end they would reach from High Point to Philadelphia?

-oOo-

The land area in the United States that is abandoned due to excessive erosion equals 312,500 farms of 160 acres each.

CONTOUR TILLAGE



Erosion Service.

PROBABLY THE GREATEST cause for eroded fields in the Piedmont area is the failure to apply methods of contour tillage, according to John Herman, agronomist of the Reedy Fork project of the Soil

"BY CONTOUR TILLAGE," said Mr. Herman, "we mean running the rows on the contour of the land, just as the terraces follow the land contour. Contour tillage is really a system of terracing, in that the rows are run level instead of up and down the hill-sides. A few more short rows may develop when rows are run on the contour, but they can be eliminated by sowing these sections where short rows would ordinarily be run into soybeans, cowpeas, or Sudan grass. Such an uneven temporary strip would check washing that may develop during a hard rain in the corn section of the field."

IN ORDER TO DEMONSTRATE THE VALUE of contour tillage and strip farming, the Soil Erosion Service through the agronomy department has arranged to supply soybeans, cowpeas and Sudan grass to be planted in strips. "Farmers who continue to run their rows up and down the hills are promoting the loss of the topsoil in wholesale fashion, while farmers who have started contour tillage have found a distinct saving in power when breaking and preparing their land." Mr. Herman said in conclusion.

-----from THE ENTERPRISE
High Point, N.C.

NECESSITY OF A CROPPING PLAN

WE HAVE SEEN POOR FARMS built up to be good, productive, profitable farms by following a systematic cropping plan. On the other hand, we have seen good farms wash away and become unprofitable because no plans were followed. Farming in a haphazard way is sure to give poor results.

A SUCCESSFUL PROGRAM of erosion control calls first for a carefully-made plan for the entire farm. If the farmer has a systematic cropping plan already in operation on his farm, it is an easy matter to carry out an effective program of erosion control; whereas, if he has no plan, it is a more difficult job, and the results are often not as effective as they should be.

.. CROP ROTATION that provides for sufficient home supply crops, cash crops, soil improvement crops -- a plan that keeps the good soil in the field -- constitutes the ideal erosion-control plan. On most farms there is some land that is too steep for a good rotation and could generally be used best for pasture or hay crops. Very often good tobacco land is very steep and erodes badly. If this is allowed to continue, a decrease in quantity and an inferior quality of tobacco is sure to result.

UNLESS A PRACTICAL PLAN of growing tobacco on steep slopes is provided, where will the farmer find land to grow tobacco after the hillsides are washed away? The solution is strip cropping. The topsoil can be kept in place on many hillside fields by growing tobacco with alternate strips of redtop grass. The Soil Erosion Service suggests that such a plan be given trial in the areas that receive erosion-control treatment.

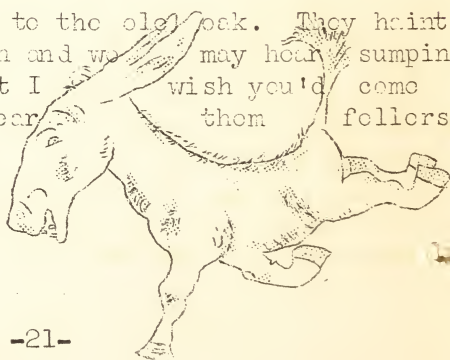
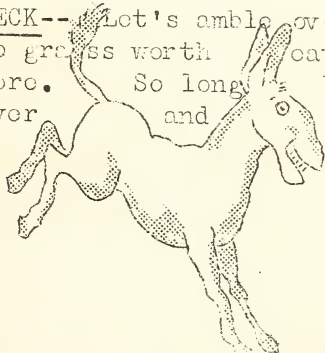
ONE JACKASS TO ANOTHER

MAUDIE---Did you see ole Marse John's cys a shinin when 'at man wid him sed they could help him git this ole restin ground sowed down to some good eatin grass?

BECK---Who wuz 'at stranger? Him and ole Marse John shore did kiver this ole farm. They went places we haint been fer years. He told Marse John they would make a plan to hold the soil and use it to the best 'vantage. I liked to hechawed rite out loud when Marse John kinder tuck up with the idear of fixin this hore place up with some good eatin grass. That stranger sorta hinted around about lespedeza, orchard grass, bluegrass and sum other kinds of grass that would make green grass most all year round. They sounds kinder horscy but that stranger looked plumb sober when he went thru here.

MAUDIE---I kinder got the idear they mite do sumpin to the fields we gotta work in. Shore hopes they comes back by here so I kin hear what they're a figurin on. It mite be me and you is goin to have to do a mite of extra work around here.

BECK---Let's amble over to the ole oak. They haint no grass worth eatin and we may hear sumpin more. So long but I wish you'd come over and hear them fellers.





TREES

I think that I shall never see
A poem lovely as a tree;

A tree whose hungry mouth is prest
Against the earth's sweet flowing breast;

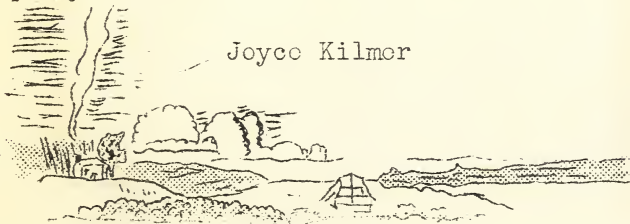
A tree that looks at God all day
And lifts her leafy arms to pray;

A tree that may in Summer wear
A nest of robins in her hair;

Upon whose bosom snow has lain;
Who intimately lives with rain.

Poems are made by fools like me,
But only God can make a tree.

Joyce Kilmer





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